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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,468	06/11/2002	Toshiro Nishio	967 029	8804

7590 02/26/2007

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EXAMINER	
LEE, RICHARD J	
ART UNIT	**PAPER NUMBER**
ILS	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/088,468	NISHIO ET AL.	
	Examiner	Art Unit	
	Richard Lee	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *34,35 and 38-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *34, 35, 38-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al (US 2002/0001346 A1) of record in view of Maruoka of record (5,257,106) and Tahara et al (6,560,282).

Kato et al discloses a moving picture coding and decoding apparatus as shown in Figures 1 and 5, and substantially the same transmission apparatus for transmitting a video signal through a transmission path as claimed in claim 34, comprising substantially the same decoder (i.e., as provided in Figure 5) to decode a compressively coded signal to output picture signals, including a base-band luminous signal and base-band color different signals (see section [0049]); and a control signal which is generated based on the compressively coded signal signals (see sections [0058], [0059], and [0096] to [0100]).

Kato et al does not particularly disclose an encoder to time-divisionally multiplex the picture signals in a video period and the control signal in a retrace period, thereby to encode the picture signals and the control signal into transmission path signals suited to the transmission path as claimed in claim 34. However, Tahara et al discloses a transcoding system using encoding history information as shown in Figure 15, and teaches the conventional multiplexing of encoded picture signals (i.e., 103 of Figure 15 and see column 23, line 46 to column 24, line 28) in a transmission path after video decoder (i.e., 102, 104 of Figure 15). It is to be noted that Tahara fails to disclose the specifics of multiplexing the picture signals in a video period and the

control signal in a retrace period, thereby to encode the picture signals and the control signal into transmission path signals suited to the transmission path as claimed. Maruoka however discloses a television signal receiver system as shown in Figure 1B, and teaches the conventional use of an encoder for time division multiplexing of audio signal and independent data (i.e., control data) during the retrace interval of the video signal, and the encoding of the picture signals and control signal into transmission path signals suited to the transmission path (i.e., the transmission of the multiplexed digital signal as a packet, see column 1, line 59 to column 2, line 13). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kato et al, Maruoka, and Tahara et al references in front of him/her and the general knowledge of time division multiplexing systems, would have had no difficulty in providing an encoder for time division multiplexing of control data during the retrace interval of the video signal, and the encoding of the picture signals and control signal into transmission path signals suited to the transmission path as taught by the combination of Maruoka and Tahara et al for the transmission system of Kato et al for the same well known time division multiplexing of video and associated data during the retrace period for transmission to a receiver purposes as claimed.

3. Claims 35, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al, Maruoka, and Tahara et al as applied to claim 34 in the above paragraph (2), and further in view of Liu et al of record (5,987,554).

The combination of Kato et al, Maruoka, and Tahara et al discloses substantially the same transmission apparatus as above, further including wherein the control signal includes information for use in controlling image quality of the picture signals (see column 20, lines 4-16 of Tahara et al), and wherein the control signal is information indicating at least one of (1) a

picture of the picture signals is any of an I picture, a P picture, and a B picture, (2) a picture of the picture signals is either a picture picked up by progressive scanning or a picture picked up by interlaced scanning, (3) a picture of the picture signals is either a top field or a bottom field picture, (4) a compression ratio of MPEG, and (5) field repeat information of a picture of the picture signals (see sections [0058], [0059], and [0096] to [0100] of Kato et al).

The combination of Kato et al, Maruoka, and Tahara et al does not particularly disclose an I2C controller to control an I2C signal, and a CPU to control the I2C controller and the decoder, wherein the decoder is controlled by the CPU so as to output the picture signals which are displayable in a reception apparatus, on the basis of reception apparatus information that is received through the I2C controller as claimed in claims 35 and 43. However, Liu et al discloses a method of controlling the transfer of information across an interface between two buses as shown in Figure 1, and teaches the conventional use of an I2C controller (see column 3, lines 9-46) to control an I2C signal and a CPU for controlling various system devices, which includes an I2C controller and a video decoder so that the decoder may therefore output pictures signals to be displayed in a reception apparatus on the basis of reception apparatus information that is received through the I2C controller (see column 1, line 56 to column 2, line 14, column 3, lines 9-46). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kato et al, Maruoka, Tahara et al, and Liu et al references in front of him/her and the general knowledge of CPU control of system devices, would have had no difficulty in providing the I2C controller and CPU for controlling the I2C controller and the video decoder as taught by Liu et al as part of the system of Kato et al so that the video decoder of Liu may be controlled by the CPU in order to output the picture signals which are displayable in a reception apparatus on the basis of reception

apparatus information that is received through the I2C controller for the same well known flexibility and lowering of interconnecting costs by reducing board space and pin count by utilizing the I2C bus architecture and communication among various interfaces through the CPU purposes as claimed.

4. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al in view of Tahara et al and Maruoka.

Kato et al discloses a moving picture coding and decoding apparatus as shown in Figures 1 and 5, and substantially the same reception apparatus for receiving a video signal through a transmission path (see Figure 5) as claimed in claim 39, comprising substantially the same decoder (i.e., as provided in Figure 5) to decode transmission path signal into picture signals, including a base-band luminous signal and base-band color different signals (see section [0049]), and a control signal (see sections [0058], [0100]), the transmission path is generated by coding the control signal (see sections [0058], [0100]), which is generated based on a compressively coded signal, and the video signal so as to be suited to the transmission path (see Figures 1 and 5).

Kato et al does not particularly disclose, though, coding the control signal to be used for controlling image quality, an image quality control to control the image qualities of the picture signals on the basis of the control signal, and the control signal being time division multiplexed in a retrace period as claimed in claim 39. However Tahara et al teaches the conventional use of a control signal for controlling the image qualities of the picture signals (see column 20, lines 4-16), and multiplexing of encoded picture signals (i.e., 103 of Figure 15 and see column 23, line 46 to column 24, line 28) in a transmission path after video decoder (i.e., 102, 104 of Figure 15).

It is to be noted that Tahara fails to disclose the specifics of time division multiplexing the control signal in a retrace period as claimed. However, Maruoka discloses a television signal receiver system as shown in Figure 1B, and teaches the conventional use of an encoder for time division multiplexing of audio signal and independent data (i.e., control data) during the retrace interval of the video signal (see column 1, line 59 to column 2, line 13). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kato et al, Tahara et al, and Maruoka references in front of him/her and the general knowledge of image quality controls of video and time division multiplexings, would have had no difficulty in providing an image quality control signal as taught by Tahara et al as well as the time division multiplexing of control data in a retrace period as taught by Tahara et al and Maruoka within the system of Kato et al for the same well known control of video qualities and time division multiplexing of information during a retrace interval of a video period for transmission to a receiver purposes as claimed.

5. Claims 38, and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al, Tahara et al, and Maruoka as applied to claim 39 in the above paragraph (4), and further in view of Ishikawa et al of record (5,969,767) and Liu et al of record (5,987,554).

The combination of Kato et al, Tahara et al, and Maruoka discloses substantially the same reception apparatus as above, further including wherein the control signal is information indicating at least one of (1) a picture of the picture signals is any of an I picture, a P picture, and a B picture, (2) a picture of the picture signals is either a picture picked up by progressive scanning or a picture picked up by interlaced scanning, (3) a picture of the picture signals is either a top field or a bottom field picture, (4) a compression ratio of MPEG, and (5) field repeat

information of a picture of the picture signals (see sections [0058], [0100] of Kato et al), and wherein the control signal is used for controlling image quality (see column 20, lines 4-16 of Tahara et al).

The combination of Kato et al, Tahara et al, and Maruoka does not particularly disclose the followings:

(a) a ROM table to hold reception apparatus information indicating performance for making the picture signals displayable as claimed in claims 38 and 40; and

(b) an I2C controller to output the reception apparatus information stored in the ROM table to a transmission apparatus on the basis of an I2C signal outputted from the transmission apparatus as claimed in claims 38 and 40.

Regarding (a), Ishikawa et al discloses a multipicture video signals display apparatus as shown in Figures 13-15, and teaches the conventional use of a ROM table (i.e., 3332 of Figure 15) for holding reception apparatus information indicating performance for making the picture signal displayable (see column 8, lines 50-67). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kato et al, Tahara et al, Maruoka, and Ishikawa et al references in front of him/her and the general knowledge of the use of tables for displays, would have had no difficulty in providing the ROM table of Ishikawa et al for the system within the combination of Kato et al, Tahara et al, and Maruoka so as to hold reception apparatus information indicating performance for making the signal displayable for the same well known display of video based on stored information data purposes as claimed.

Regarding (b), Liu et al discloses a method of controlling the transfer of information across an interface between two buses as shown in Figure 1, and teaches the conventional use of

an I2C controller (see column 3, lines 9-46) to control an I2C signal as well as the use of the I2C controller and a CPU for controlling various system devices, which includes video encoders and decoders (see column 1, line 56 to column 2, line 14, column 3, lines 9-46). It is hence considered obvious to use the I2C controller of Liu et al so as to output the reception apparatus information stored in the ROM table (i.e., as provided by Ishikawa et al, see 3332 of Figure 15 of Ishikawa et al) to a transmission apparatus on the basis of an I2C signal outputted from the transmission apparatus (see Figures 13-15 of Ishikawa et al). Therefore, it would have been obvious to one of ordinary skill in the art, having the Kato et al, Tahara et al, Maruoka, Ishikawa et al, and Liu et al references in front of him/her and the general knowledge of CPU and I2C control of system devices, would have had no difficulty in providing an I2C controller to control an I2C signal as well as the use of the I2C controller and a CPU for controlling various system devices, which includes video encoders and decoders as taught by Ishikawa et al for the system within the combination of Kato et al, Tahara et al, and Maruoka, so that the I2C controller of Liu et al is provided so as to output the reception apparatus information stored in the ROM table of Ishikawa et al to a transmission apparatus on the basis of an I2C signal outputted from the transmission apparatus for the same well known control and transmission of video via CPU and I2C control interfacing purposes as claimed.

6. Regarding the applicants' arguments at pages 6-10 of amendment filed December 8, 2006 concerning in general that "... In the present office action, the Examiner relies on the same art references (Kato, Liu, and Maruoka) as relied upon the office action of November 21, 2005 except that the Examiner makes further reference to Tahara. Applicants respectfully assert that even with the new reference to Tahara, the Examiner has failed to demonstrate that each and

every element of applicants' claims is taught or suggested by the prior art of record ...Regarding the element of time divisionally multiplexing of a control signal with picture signals (which is an element recited in some form in each of claims 34, 35, 38, 39, and 40) the Examiner in fact admits that the new reference relied upon Tahara fails to teach such an element ... Because the Examiner has not provided an explanation as to why the Examiner believes that the reference to "independent data" in Maruoka is a reference to a "control signal", it is respectfully asserted that the Examiner has indicated that the teachings of Maruoka cannot support the conclusion that the reference to "independent data" is a reference to "control signals" as recited in applicants' claims ... If the Examiner will continue to maintain that the "independent data" referred to in Maruoka is a control signal, the Examiner is respectfully request to further explain (in addition to explaining why the Examiner regards a reference to "independent data" to be a reference to a control signal) why the Examiner further believes that the independent data referred to in Maruoka is data that is "generated based on [a] compressively coded signal" ... ", the Examiner wants to point out that Kato et al, at sections [0098] to [0100] discloses control information generated by circuit 201 of Figure 5 which includes the control of header data information generated from compressed data in the form of video sequence, GOP, picture, slice, macroblock, and block layers, for example, and further to control the decoding of the pictures within the decoder of Figure 5. The control information as generated by circuit 201 therefore is representative of the control signal as claimed which is based on the compressively coded signal (i.e., the header data information). Regarding the features of time-divisionally multiplexing the picture signals and the control signal, it is clear from Figure 1B of Maruoka that the color difference and luminance signals that are time compressed represent the "independent data" as

disclosed at column 1, line 59 to column 2, line 12. And since this "independent data" and "audio data" as shown in Figure 1B of Maruoka are time division multiplexed as a packet, inherent if not obvious control signals are involved in the audio and independent data processings in order to timely synchronize and multiplex the digital signal. The Examiner wants to stress that: One of ordinary skill in the art is presumed to possess a certain amount of background knowledge independent of the references. In re Sovish, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985); In re Jacoby, 309 F.2d 513, 135 USPQ 317 (C.C.P.A. 1962). The conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference. In re Bozek, 416 F.2d 1385, 163 USPQ 545 (C.C.P.A. 1969). With the above in mind, it is submitted again that the "independent data" of Maruoka nevertheless represents the control signal as claimed and therefore Maruoka discloses substantially the same if not the same encoder for time divisionally multiplexing the picture signals in a video period and the control signal into transmission path signals suited to the transmission path (see column 1, line 59 to column 2, line 13 of Maruoka), as claimed.

Regarding the applicants' arguments at pages 10-13 of amendment filed December 8, 2006 concerning in general the substance of the interview dated December 5, 2006 and that "... if the Examiner wishes to further rely on Maruoka supporting the claim rejections, the Examiner is respectfully requested to present a convincing line of reasoning based on logic and sound scientific reasoning why the skilled artisan would be motivated to modify Maruoka in accordance with applicants' claims ... the Examiner has applied an improper legal standard in

attempting to establish that there is motivation to combine references ...", the Examiner wants to point out that such arguments have been addressed in the above.

Regarding the applicants' arguments at pages 13-14 of amendment filed December 8, 2006 concerning in general that "... it is believed that Tahara teaches away from the claimed invention ... Tahara teaches that encoding parameters of Tahara are carried by a base band video signal and for extracting of the encoding parameters there is required decoding of the base band signal ... the principle operation of Tahara, requiring superposing of encoding parameters on a video signal would be changed ...", the Examiner respectfully disagrees. It is submitted again that Tahara nevertheless teaches the conventional multiplexing of encoded picture signals (i.e., 103 of Figure 15 and see column 23, line 46 to column 24, line 28) in a transmission path after video decoder (i.e., 102, 104 of Figure 15). And even though Tahara is silent as to the specifics of multiplexing of the picture signals in a video period and control signal in a retrace period, thereby to encode the picture signals and the control signal into transmission path signals suited to the transmission path as claimed, such deficiencies are provided by Maruoka. It is submitted that the claimed invention for reasons above, is rendered obvious in view of the combination of Kato et al, Maruoka, and Tahara et al.

Regarding the applicants' arguments at pages 14-15 of amendment filed December 8, 2006 concerning in general that "... In rejecting claims for want of novelty or for obviousness, the Examiner must cite the best references at his/her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable ... The Examiner is respectfully requested to specify which claims are being rejected when references are discussed. The Examiner is further

respectfully requested to specify each claim, including each dependent claim in making the rejections in accordance with the requirements of 37 C.F.R. 1.104 ...", the Examiner wants to point out that the best references have been applied in the section 103 rejections as shown in the above. If the applicants believe that there are better references or are aware of any references pertinent to the claimed invention, the Examiner wants to remind the applicants of their required duty to disclose material pertinent to patentability as required by 37 CFR 1.56. The Examiner also believes that the requirements of 37 CFR 1.104 as pointed out by the applicants have been satisfied as shown in the above section 103 rejections.

Regarding the applicants' arguments at page 15 of amendment filed December 8, 2006 concerning in general that that arguments presented previously regarding the Examiner's reliance on "Office Notice" are incorporated by reference herein, the Examiner's response to such arguments from the Office Action dated August 8, 2006 are similarly incorporated by reference herein.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

2/15/07